



TGSP-4A

Tone Generator Owner's Manual

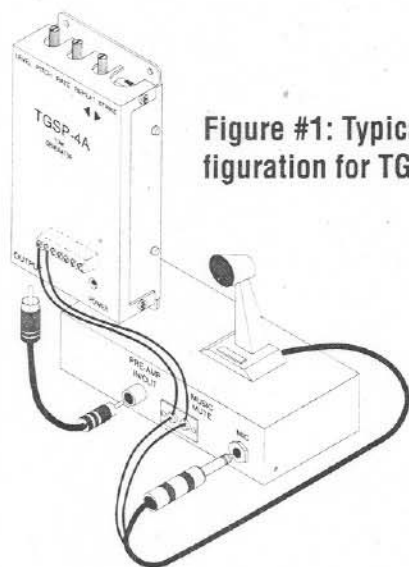
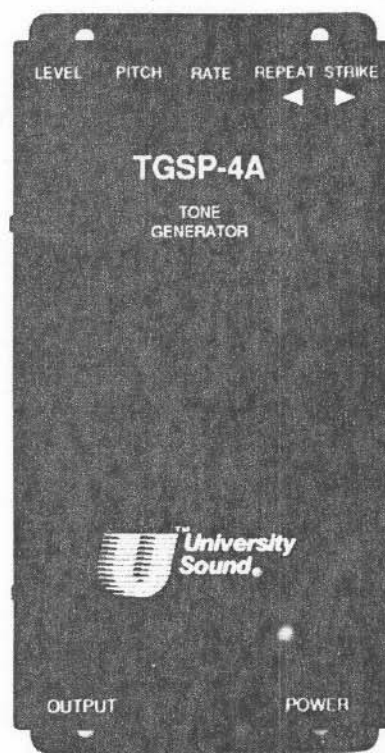


Figure #1: Typical configuration for TGSP-4A



Specifications:

Output Power: 0V to 3V RMS (Aux Level)
Output Connection: RCA Phono Jack
Pitch Range: 850 Hz to 1400 Hz
Activation: Contact Closure
Size: 1.25" x 3" x 6.125" (3.18 x 7.62 x 15.56 cm)
Weight: 10 oz. (0.28 kg)

DESCRIPTION

The Model TGSP-4A is a multi-purpose tone generator that provides either a single strike chime or one of three repeating tones for the purpose of annunciation or signaling. In the strike chime mode, the unit produces a single chime note each time the control circuit is activated by means of a switch contact closure. This circuit may be wired in parallel with the manual muting terminals of any University Sound amplifier or receiver to provide a pleasant alert tone each time the paging microphone is used. In the repeat chime mode the unit produces a repeating chime note, a steady tone, or siren sound for as long as the appropriate control circuit is activated by contact closure.

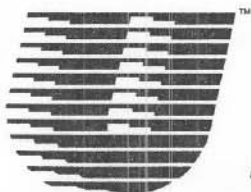
UNPACKING

The unit should be removed carefully from the carton and inspected for any possible damage in transit. If there is any evidence of damage which might have occurred in shipment, immediately notify your supplier or the transportation company that delivered it. Claims for damage sustained in transit must be made upon the carrier. Save all packing material for the claim agent who will supply you with the proper forms and give you the necessary instructions for filling out a claim.

OPERATION

All control-circuit connections to the unit are made by means of a screw clamp terminal block. To make connections to this strip, the cover of the unit must be removed. The TGSP-4A

MADE IN THE U.S.A. BY:



**University
Sound Inc.**

a MARK IV company
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Warranty: These units have been very carefully inspected and are warranted to be free from defects in material and workmanship under normal use and service for a period of one year from sale to original purchaser. This warranty does not extend to any unit that has been subject to abuse, misuse, neglect, accident, improper installation, or alterations. The obligation of University Sound under this warranty is limited to the repair of any defect in material or workmanship and/or the replacement of any defective part, provided the unit is returned transportation paid within one year. It is recommended that any unit on which service is required be processed through your local distributor or installation company wherever possible. This Warranty is expressly in lieu of all other Warranties, expressed or implied, and of all other obligations or liabilities on our part. We neither assume for us any other liability in connection with the products manufactured by University Sound.

can be operated in one of two modes: single strike or repeat. Which mode is in effect is determined by the position of the select switch, labeled SW1 in the diagram below. In the repeat mode, a switch closure is made between the terminal marked KEY and the terminal marked with the desired function. The unit may be wired with three different switching circuits, one each for the repeat chime, the steady chime, and the siren. In the event that two or more of these circuits are activated simultaneously, the steady tone will take precedence over the chime, and the siren will take precedence over both the chime and the steady tone.

In the single strike mode, a switch closure between the ground terminal and the strike chime terminal will produce a single chime each time the switch circuit is closed. This circuit is compatible with all manual mute circuits found on University Sound amplifiers and receivers. A typical configuration is shown in Figure 1. When connected in this fashion, a single chime tone will sound each time the press-to-talk bar is depressed on the microphone.

CAUTION: DO NOT PARALLEL THESE KEYING CIRCUITS WITH THE ELECTRICAL CIRCUITRY OF ANY OTHER EQUIPMENT. DAMAGE TO THE TGSP-4A CAN RESULT. IF IT IS DESIRABLE TO ACTIVATE ANOTHER CIRCUIT SIMULTANEOUSLY WITH THE TONE, A TWO POLE SWITCH OR RELAY MUST BE USED.

At either side of the terminal block are jacks for the power supply input and audio output, both of which are accessible without

removing the enclosure cover. The audio output jack is a standard RCA phono jack, and the power input jack is for use with the 24VDC power adaptor supplied with the unit. The connection to the audio output should be made with shielded audio cable to prevent RFI/EMI noise pickup.

At the opposite end of the unit, three control knobs protrude from under the cover. These control the level, pitch, and rate of the output signal. In the repeating chime mode, the rate control varies the rate of repetition. In the single-strike mode, the rate control affects the decay of the signal; for a realistic chime sound, the control should be set to the minimum position. The pitch control varies the pitch from 850 Hz to 1400 Hz. The level control adjusts the output level from 0V to 3V to match audio amplifier input requirements. To the side of these three knobs is a switch that determines whether the unit is in single strike or repeating mode. This switch can be accessed through a hole in the enclosure using a flathead screwdriver.

When the enclosure cover is removed, two additional controls are accessible. The potentiometer near the center of the circuit board marked VR4 is pre-adjusted at the factory for proper decay of the chime tone. It may be necessary to adjust the pot counter-clockwise when a longer chime decay is desired, especially when the chime pitch is at or near its maximum. The other control normally hidden by the cover is a jumper identified by the "cut for whoop sound" marking. As indicated, when this jumper is cut, the siren tone from the TGSP-4A will be more of a "whoop" sound than a conventional police-type siren. None of the other tones of the TGSP-4A are affected by this jumper.

